

AMENDMENTS TO THE CLAIMS

1 (Currently amended). A computer readable medium containing program instruction for designing a technical system~~method for designing a technical system, comprising the steps of:~~

- a) providing a substitute model that describes measurement data of a predetermined system;
- b) determining a numerical value for a quality of said substitute model by comparing said measurement data of said predetermined system with data determined by said substitute model;
- c) adapting said substitute model from said numerical value for said quality to be as high of a quality as possible;
- d) applying said substitute model adapted with regard to its quality in a design of said technical system.

2 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, wherein said substitute model is a regression model.

3 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, wherein ~~said step of~~ determining a numerical value for a quality further utilizes a mean square deviation of said measurement data from said data determined by said substitute model.

4 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, further comprising ~~the step of:~~ sorting said measurement data according to their quality, with respect to the deviation of the latter from said data determined by said substitute model; and picking out a predetermined number of n% of worst measurement data.

5 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, further comprising ~~the step of:~~ sorting said measurement data according to their quality, with respect to the deviation of the latter from said data determined by said substitute model; and picking out a predetermined number of n% of worst measurement data unless this data lie in a continuous range.

6 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, further comprising ~~the step of~~: reducing an amount of measurement data in the course of a preprocessing operation.

7 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 6, further comprising ~~the step of~~: classifying, in said preprocessing operation, of said measurement data.

8 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 1, further comprising ~~the step~~
~~of~~: controlling a technical plant utilizing said data obtained by designing.

9 (Currently amended). The ~~method~~ computer readable medium as claimed in claim 8, further comprising ~~the step~~
~~of~~: online adaptive control for said technical plant.

10 (previously presented). An apparatus for designing a technical system, comprising:
a processor unit which is set up in such a way that

- a) measurement data of a predetermined system are described based on a substitute model and stored in said processor unit;
- b) a numerical value for a quality of said substitute model is determined by said processor unit by comparing said measurement data of the predetermined system with data determined by said substitute model; and
- c) said substitute model is adapted, utilizing said processor unit, from said numerical value for said quality to be as of high a quality as possible, wherein said substitute model adapted with regard to its quality is used for designing said technical system.